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Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KEMAL GULER and HSIU-KHUERN TANG

Appeal 2009-008863
Application 10/757,323
Technology Center 3600

Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and BIBHU R. MOHANTY, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Kemal Guler et al. (Appellants) seek our review under 35 U.S.C. § 134 (2010) of the final rejection of claims 1-22. We have jurisdiction under 35 U.S.C. § 6(b) (2010).

SUMMARY OF DECISION

We AFFIRM.[2]

THE INVENTION

This invention is a method and system of simulating multiple lot auctions using different sequencing rules and comparing the results to determine an optimal strategy for implementing an auction. *See* Specification [0001] and [0002].

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

> 1. A method of evaluating sequencing rules for a multiple lot auction, comprising:
>
> obtaining a next set of bids from a plurality of simulated bidders;
>
> simulating the multiple lot auction using the next set of bids and a sequencing rule until simulated bidding on all lots is closed;
>
> simulating the multiple lot auction using a different sequencing rule until bidding on all lots is closed; and

[2] Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed Sep. 8, 2008) and Reply Brief ("Reply Br.," filed Jan. 14, 2009), and the Examiner's Answer ("Answer," mailed Nov. 17, 2008).

comparing results of the simulated auctions with both sequencing rules

wherein the sequencing rules determine how closing times for accepting any bids are ordered among each of the lots.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Cooper	US 5,809,282	Sep. 5, 1998
Jarvis	US 2004/0006503 A1	Jan. 8, 2004
Heimermann	US 7,110,976 B2	Sep. 19, 2006

Pinker et al., October 2001, *Using Transaction Data for the Design of Sequential, Multi-Unit Online Auctions*, William E. Simon Graduate School of Business Administration, Computer and Information Working Paper Series No. CIS 00-03, University of Rochester, Rochester, New York. [Hereinafter, Pinker].

Wurman et al., *Specifying Rules for Electronic Auctions*, July 11, 2002. [Hereinafter, Wurman].

Dumas et al., *A Probabilistic Approach to Automated Bidding in Alternative Auctions, International World Wide Web Conference*, ACM Press, Honolulu, Hawaii, 2002, pp. 99-108. [Hereinafter, Dumas].

The following rejections are before us for review:

1. Claims 1 and 2 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Heimermann and Wurman.
2. Claims 3-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Heimermann, Wurman, and Dumas.

3. Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Heimermann, Wurman, and Jarvis.
4. Claims 9-13, and 18-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, and Jarvis.
5. Claims 14, 16, and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, Jarvis, Dumas, and Cooper.
6. Claim 15 is rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, Jarvis, and Dumas.
7. Claim 22 is rejected under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, Jarvis, and Heimermann.

ISSUE

The issue is whether claims 1 and 2 are unpatentable under 35 U.S.C. §103(a) over Pinker, Heimermann and Wurman. Specifically, the issue is whether one of ordinary skill in the art would have been led by the teachings of Pinker, Heimermann, and Wurman to simulating a multiple lot auction twice using different sequencing rules. The rejections of claims 3-22 also turn on this issue.

FINDINGS OF FACT

We find that the following enumerated findings of fact (FF) are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Pinker describes a multi-period dynamic optimization model for a multi-unit auction design to determine the lot size for each auction, the number of auctions, and the duration of each auction. Pg. 29. *See also* pg. 1-2.
2. Pinker's section 3.3 on pages 18-19 describes that auction duration is an important design parameter that affects profit.
3. Wurman's section 3.3 on page 12 states:

> Finally, the auction design must specify the logical conditions that close the auction. Auctions can close at a fixed time, after a period of inactivity, when a transaction occurs, or at a random time.
>
> Although the choices controlling timing seem relatively minor compared to issues such as which matching function to use, they can have tremendous impact on the auction . . . The difference in this single rule greatly impacts the bidding strategies used by the bidders.

4. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Obviousness

> Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.") The Court in *Graham* further noted that evidence of secondary considerations "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Graham,* 383 U.S. at 17-18.

ANALYSIS

The rejection of claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Heimermann and Wurman.

The Appellants argued claims 1 and 2 as a group. App. Br. 11-12. We select claim 1 as the representative claim for this group, and the remaining claim 2 stands or falls with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2010).

To traverse the rejection of claim 1, the Appellants argue: 1) that the Examiner's combination of Pinker, Heimerman, and Wurman fails to teach simulating the multiple lot auction using two different sequencing rules (App. Br. 11-12 and Reply Br. 2-6), and 2) that modifying Pinker to simulate different sequencing rules would not have been obvious (App. Br. 12 and Reply Br. 6-7).

The Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR,* 550 U.S. at 415. (citing *Graham*, 383 U.S. at 12 (emphasis added)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR*, 550 U.S. at 416. The operative question in this "functional approach" is "whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR*, 550 U.S. at 415.

Pinker teaches a model that simulates multi-unit auctions to determine optimal lot size, number of lots, and duration of the auction in order to increase the seller's profit. FF 1-2. Wurman teaches that choices as to when an auction closes, such as after a period of inactivity, when a transaction occurs, or at a random time (i.e., sequencing rules), can have "a tremendous impact" on an auction. FF 3. Given these teachings, we find that one of ordinary skill in the art would have been led to a model that simulates a multi-unit auction using different sequencing rules in order to design an auction that increases the seller's profit.

As to the Appellants' argument that it would not be obvious to modify Pinker to account for different sequencing rules as "[i]t is unclear how the modeling of Pinker can be modified to account for the tremendous impact of using different timing rules for an auction." App. Br. 12. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Further, we

note that the Appellants' have provided no evidence of secondary considerations. FF 4.

Accordingly, we find that the Appellants have not overcome the rejection of claims 1 and 2 under 35 U.S.C. § 103(a) as being unpatentable over Pinker, Heimermann and Wurman.

The rejection of claims 9-13 and 18-21 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, and Jarvis.

Claims 9-12

The Appellants argue claims 9-12 as a group. *See* App. Br. 11-12. We select claim 9 as the representative claim for this group, and the remaining claims 10-12 stands or falls with claim 9. 37 C.F.R. § 41.37(c)(1)(vii) (2010).

Claim 9 recites a storage medium that contains an application that causes a processor to simulate the multiple lost auction using first and second sequencing rules. The Appellants rely upon the same arguments to made to traverse the rejection of claim 1 to traverse the rejection of claim 9. *See* App. Br. 13-14 and Reply Br. 2-6. For the same reasons discussed above with regard to claim 1, we find the Appellants argument unpersuasive. Accordingly, we find that the Appellants have not overcome the rejection of claims 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Pinker, Wurman, and Jarvis.

Claim 13

Claim 13 recites a system that includes a stored application that causes a processor to simulate a multiple lot auction using a plurality of

sequencing rules. The Appellants rely upon the same arguments made to traverse the rejection of claim 1 to traverse the rejection of claim 13. *See* App. Br. 13-14 and Reply Br. 2-6. For the same reasons discussed above with regard to claim 1, we find the Appellants argument unpersuasive. Accordingly, we find that the Appellants have not overcome the rejection of claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Pinker, Wurman, and Jarvis.

Claims 18, 21, and 22

The Appellants argue claims 18, 21, and 22 as a group. *See* App. Br. 13-14. We select claim 18 as the representative claim for this group, and the remaining claims 21 and 22 stand or fall with claim 18. 37 C.F.R. § 41.37(c)(1)(vii) (2010).

The Appellants rely upon the same arguments made to traverse the rejection of claim 1 to traverse the rejection of claim 18. *See* App. Br. 13-14 and Reply Br. 2-6. However, claim 18 does not include a recitation of a second set of sequencing rules. It is not until dependent claim 19, discussed below, that a second set of sequencing rules is recited in a limitation. The Appellants' arguments are not applicable to claim 19 as this claim does not recite the limitation at issue. Accordingly, we find that the Appellants have not overcome the rejection of claims 18, 21, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Pinker, Wurman, and Jarvis.

Claims 19 and 20

The Appellants argue claims 19 and 20 as a group. App. Br. 13-14. We select claim 19 as the representative claim for this group, and the remaining claim 20 stands or falls with claim 19. 37 C.F.R. § 41.37(c)(1)(vii) (2010).

Claim 19 depends upon claim 18 and further recites "means for simulating the multiple lot auction using a second sequencing rule." The Appellants rely upon the same arguments made to traverse the rejection of claim 1 to traverse the rejection of claim 19. *See* App. Br. 13-14 and Reply Br. 2-6. For the same reasons discussed above with regard to claim 1, we find the Appellants argument unpersuasive. Accordingly, we find that the Appellants have not overcome the rejection of claims 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Pinker, Wurman, and Jarvis.

The rejections of claims 3-7, 8, 14-17, and 22.

We also shall sustain the standing 35 U.S.C. § 103(a) rejections of dependent claim 3-7, 8, 14-17, and 22 since the Appellants have not challenged such with any reasonable specificity (*see* App. Br. 14-15), thereby allowing claims 3-7, 8, 14-17, and 22 to stand or fall with parent claims 1, 13, and 18 (*see In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987)).

Accordingly, we find that the Appellants have not overcome the rejection of:

claims 3-7 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Heimermann, Wurman, and Dumas;

claim 8 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Heimermann, Wurman, and Jarvis;

claims 14, 16, and 17 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, Jarvis, Dumas, and Cooper;

claim 15 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, Jarvis, and Dumas; and

claim 22 under 35 U.S.C. §103(a) as being unpatentable over Pinker, Wurman, Jarvis, and Heimermann.

DECISION

The decision of the Examiner to reject claims 1-22 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2010).

AFFIRMED

Klh

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